Kitchens, Labs and Landscapes: Recovering Organics from Dispersed Urban Institutional Locations

Forum on Waste Reduction--Tuesday, 1-13-04--Quinsigamond Community College

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Organic Refuse Sources

- Kitchens: food scraps from 10 out of 14 Board Plan kitchens
- Labs: non-red-bag lab animal cage cleanings from two largest facilities
- Landscape: leaves, grass clippings, chipped brush and limbs from 400-acre campus

Compostables: recovery vs potential

	Recovered in FY 2003	Estimated capture rate	Additional potential tonnage
Landscape refuse	880	65%	474
Food scraps from board and retail dining	242	40%	363
Animal bedding	854	80% (non-red-bag)	214
Total collected for composting	1,976		

Estimated potential additional sources

Academic and administrative areas (e.g., coffee grounds, staff lounges, paper towels, non-recyclable paper)	4,000
Undergraduate residences (50% food waste, 50% other organics)	500
Graduate residences (75% food waste, 25% other organics)	800
Total additional potential	**6,351**
Total of actual + potential (56% of overall refuse)	**8,327**

Non-pulped food waste

Rubbermaid Round Brutes with swivel wheel bases and lids have withstood the test of long-term use. Handles support winch hook pickup, unless barrel contains over 2/3 water (e.g. soup). Photo credit: Justin Adams, MIT

Somat pulping system

Somat food pulper enables multiple organic waste generation sites in a building to send waste up or down to convenient vehicle recovery site. This system is no less convenient for food service worker than a traditional "pig" disposer which flushes food waste into municipal sewage.

Pulp recovery

Post-Somat: pulped & 50% de-watered food, napkins & cardboard accumulate in 2-yarder; remaining water is recycled. This process uses 90% less water than disposing of food waste in sewage.

Keeping neighbors happy

Workers complained of odors in dock area; HUDS began using anti-bacterial solution in slurry water, which successfully reduced odors. According to manufacturer and composter, solution breaks down in two weeks to allow full decomposition.

No back door

Into the 2-yarder

Back to the earth!

Photo credit: Justin Adams, MIT